

WINTER FOOD CACHING BY THE MERLIN (*FALCO COLUMBARIUS RICHARDSONII*)

by

Edward Pitcher
Peter Kiewit Sons' Co.
P.O. Box 746
Sheridan, Wyoming 82801

Peter Widener
P.O. Box 979
Sheridan, Wyoming 82801

and

Stephen J. Martin
U.S. Fish & Wildlife Service
Denver Wildlife Research Center
Fort Collins Field Station
Fort Collins, Colorado 80521

Food caching by the Merlin (*Falco columbarius richardsonii*) has recently been documented by Oliphant and Thompson (1976). However, winter caching and retrieving by this Merlin have not been documented. The following episodes took place within the city limits of Sheridan, Wyoming, during the winter and late fall periods of 1977.

On January 14, 1977, between 1200 and 1230 hours, Edward Pitcher and Stephen Martin observed a Merlin pursuing a small flock of waxwings (*Bombycilla spp.*) flying approximately 30 m high in a southerly direction. The flight ended in a miss, and the Merlin flew back toward Big Horn Avenue and landed on a utility pole. We approached the bird and upon close observation, identified it as an immature male (*F. C. richardsonii*). He remained on this pole for 2 or 3 minutes and then flew across the street to another pole. Remaining perched for less than one minute, he picked up a dead passerine with his beak, transferred it to his foot, and flew about 2 blocks northwest. He then landed on a tree squirrel's nest where he plumed and ate the prey item. Positive identification of the prey was not determined, but it appeared to be a redpoll (*Acanthis spp.*) or finch (*Carpodacus spp.*).

On December 19, 1977, between 1130 and 1230 hours, Pete Widener observed a female *richardsonii* Merlin (age undetermined) chasing and then killing a house Sparrow (*Passer domesticus*). The bird flew directly to a squirrel's nest with the prey where it began to plume the victim. Pluming was not completed when the Merlin cached this food item in the nest. The Merlin then flew to a nearby tree, where it perched for approximately ten minutes, rousing once and bobbing its head several times. Leaving this perch, it pursued another flock of House Sparrows, capturing one in the air. Returning to the tree from which it left, it began to bit the head and neck of the dead sparrow. The Merlin then returned to the same squirrel nest, cached this new food item, and flew off. Both caching episodes were conducted with the bird's beak, the feet being used only

to carry the item. After waiting there for 10 to 15 minutes, we ceased our observations.

Collins (1976) suggests that caching behavior is an adaptive advantage when seasonal abundance of prey exists. Thus, by stockpiling food either during nesting or at other times of the year, the individual ensures an adequate food supply. This type of behavior has been documented in wild and captive raptors. Tordoff (1955) and Mueller (1974) probably have the most definitive work regarding food caching behavior by the American Kestrel (*Falco sparverius*). Combined with known incidences of this behavior by the Peregrine (*Falco peregrinus*), Goshawk (*Accipiter sp.*), Secretary Bird (*Sagittarius serpentarius*), Lizard Buzzard (*Kaupifalco monogrammicus*), Brown and Amadon (1968), Prairie Falcon (*Falco mexicanus*), (Oliphant and Thompson, 1976), and by a variety of tytonid and strigid owls (Collins 1976), one might consider this behavior to exist among all diurnal and nocturnal raptors.

Literature Cited

- Brown, L. H., and D. Amadon. 1968. *Eagles, hawks, and falcons of the world*. McGraw-Hill, New York.
- Collins, C. T. 1976. Food caching behavior in owls. *Raptor Research* 10(3):74-76.
- Mueller, H. C. 1974. Food caching behavior in the American Kestrel (*Falco sparverius*). *Zeitschrift für Tierpsychologie* 34:105-114.
- Oliphant, L. W., and J. P. Thompson. 1976. Food caching behavior in Richardson's Merlin. *Canadian Field Naturalist* 90(3): 364-365.
- Tordoff, H. B. 1955. Food storing in the Sparrow Hawk. *Wilson Bulletin* 67:139-140.

FLUCTUATIONS IN THE NUMBER OF NORTHERN HARRIERS (*CIRCUS CYANEUS HUDSONIUS*) AT COMMUNAL ROOSTS IN SOUTH CENTRAL OHIO

by

Keith L. Bildstein¹
Department of Zoology
The Ohio State University
1735 Neil Avenue
Columbus, Ohio 43210

Abstract

Eleven Northern Harrier (*Circus cyaneus*) roosts were studied in south central Ohio during the four winters of 1973-1974 through 1976-1977. They ranged from 8 to 59 birds. The number of birds using each roost fluctuated throughout the winter. While the abandonment of at least three roosts in midwinter can be attributed to severe weather, reciprocal fluctuations in the number of birds at nearby roosts and the direction of birds returning to one roost suggest that Northern Harriers will shift roost sites locally in an effort to maintain proximity to their hunting areas.

¹Present address: Department of Biology, Winthrop College, Rock Hill, S.C. 29733.